

1. Record Nr.	UNINA9910678257003321
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Titolo	Intelligent methods with applications in volcanology and seismology // Alireza Hajian, G. Nunnari, Roohollah Kimiaefar
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2023] ©2023
ISBN	3-031-15432-0
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (216 pages)
Collana	Advances in volcanology
Disciplina	006.3
Soggetti	Artificial intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter1-Intelligent methods and motivations to use in volcanology and seismology -- Chapter2-Machine Learning: The concepts -- Chapter 3 - Machine Learning Applications in volcanology and seismology -- Chapter 4 - Deep Learning: The concepts -- Chapter 5: Deep Learning: Applications in Seismology and Volcanology -- Chapter 6: Evolutionary Algorithms with focus on Genetic Algorithm -- Chapter 7: Application of Genetic Algorithm in volcanology and seismology.
Sommario/riassunto	This book presents intelligent methods like neural, neuro-fuzzy, machine learning, deep learning and metaheuristic methods and their applications in both volcanology and seismology. The complex system of volcanoes and also earthquakes is a big challenge to identify their behavior using available models, which motivates scientists to apply non-model based methods. As there are lots of seismology and volcanology data sets, i.e., the local and global networks, one solution is using intelligent methods in which data-based algorithms are used. .